

(1 of 2)

PTO/SB/08A (10-01)

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 1 of 3

Complete If Known

Application Number	09/237,969
Filing Date	January 27, 1999
First Named Inventor	David Alexander
Art Unit	3714
Examiner Name	John L. Sotomayor
Attorney Docket Number	IMMR-023/01US

U.S. PATENT DOCUMENTS					
Examiner	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
JLS		2,972,140	2/14/1981	Hirsch	
		4,127,752	11/28/1978	Lowthorp	
		4,262,549	4/21/1981	Schwellenbach	
		4,333,070	6/1/1982	Barnes	
		4,439,182	03/27/1984	Blaine	
		4,464,117	8/7/1984	Foerst	
		4,484,191	11/20/1984	Vavra	
		4,885,565	12/5/1989	Embach	
		5,022,384	6/11/1991	Freels	
		5,165,897	11/24/1992	Johnson	
		5,175,459	12/29/1992	Daniel et al.	
		5,186,695	2/16/1993	Mangseth et al.	
		5,283,970	2/8/1994	Aigner	
		5,436,622	7/25/1995	Gutman et al.	
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		5,575,761	11/19/1996	Hajjanpour	
		5,690,582	11/25/1997	Ulrich et al.	
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		6,111,577	8/29/2000	Zilles et al.	
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Examiner Initials ¹	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)			
JLS		JP	H2-185278		7/19/1990	Taito Corporation	
		JP	H4-8381		1/13/1992	Epoch Co. and Key- Planning Co.	
		JP	H7-24147		1/27/1995	Sega Corporation	
JLS		JP	H5-192449		8/3/1993	Taito Corporation	

Examiner Signature	John Sotomayor	Date Considered	8/5/04
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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
JLS		PATRICK, "Design, Construction, and Testing of a Fingertip Tactile Display for Interaction with Virtual and Remote Environments," <i>Master of Science Thesis</i> , MIT, Aug. 1990, archived Nov. 8, 1990.
		CALDER, "Design of A Force-Feedback Touch-Introducing Actuator For Teleoperator Robot Control," <i>Bachelor of Science Thesis</i> , MIT, May 1983, archived June 23, 1983.
		WIKER, "Teletouch Display Development: Phase 1 Report," <i>Technical Report 1230</i> , Naval Ocean Systems Center, San Diego, July 1988.
		BLISS, "Optical-to-Tactile Image Conversion for the Blind," <i>IEEE Transactions on Man-Machine Systems</i> , Vol. MMS-11, No. 1, March 1970.
		JOHNSON, "Shape-Memory Alloy Tactile Feedback Actuator," <i>Armstrong Aerospace Medical Research Laboratory</i> , AAMRL-TR-90-039, August, 1990.
		KONTARINIS et al., "Tactile Display of Vibratory Information in Teleoperation and Virtual Environments," <i>PRESENCE</i> , 4(4):387-402, Harvard Univ., 1995.
		AUKSTAKALNIS et al., "Silicon Mirage: The Art and Science of Virtual Reality," ISBN 0-938151-82-7, pp. 129-180, 1992.
		EBERHARDT et al., "Inducing Dynamic Haptic Perception by The Hand: System Description and Some Results," <i>OSC-Vol. 55-1, Dynamic Systems and Control</i> , Volume 1, ASME 1994.
		GOBEL et al., "Tactile Feedback Applied to Computer Mice," <i>International Journal of Human-Computer Interaction</i> , Vol. 7, No. 1, pp. 1-24, 1995.
		PIMENTEL et al., "Virtual Reality: through the new looking glass," 2 nd Edition; McGraw-Hill, ISBN 0-07-050167-X, pp. 41-202, 1994.
		"Cyberman Technical Specification," <i>Logitech Cyberman SWIFT Supplement to Logitech Mouse Technical Reference and Programming Guide</i> , 4/5/1994.
		OUHYOUNG et al., "The Development of A Low-Cost Force Feedback Joystick and Its Use in the Virtual Reality Environment," <i>Proceedings of the Third Pacific Conference on Computer Graphics and Applications, Pacific Graphics '95</i> , Seoul, Korea, 21-24 August 1995.
		KACZMAREK et al., "Tactile Displays," <i>Virtual Environment Technologies</i> , Chap. 9, pp. 349-414.
		LAKE, "Cyberman from Logitech," at http://www.libliblo.org/GameBytes/issue21/greviews/cyberman.html , 1994.
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Examiner
Signature

John Sotomayor

Date
Considered

8/5/04

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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
JS		NOLL, "Man-Machine Tactile," <i>SID Journal</i> , July/August 1972 Issue.
		ROSENBERG, "Virtual Fixtures: Perceptual Overlays Enhance Operator Performance in Telepresence Tasks," <i>Ph.D. Dissertation</i> , Stanford University, June 1994.
		"Technical Manual Overhaul Instructions With Parts Breakdown, Coaxial Control Shaker Part no. C-25502," Safe Flight Instrument Corporation, Revised 15 July 1980 (23 pages).
		SCANNELL, "Taking a Joystick Ride," <i>Computer Currents</i> , Boston Edition, Vol. 9, No. 11, November 1994
JS		"Component Maintenance Manual With Illustrated Parts List, Coaxial Control Shaker Part no. C-25502," Safe Flight Instrument Corporation, Revised 28 January 2002 (3 pages).

Examiner Signature	John Sotomayor	Date Considered	8/5/04
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Examiner	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
JLS		4,936,892	08/1990	Walker et al.	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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JLS		WESTWOOD, J.D., HOFFMAN H.M., STREDNEY D., WEGHORST S.J., "Training Environment for Inferior Vena Caval Filter Placement," article, Medicine Meets Virtual Reality, Jan 28-31, 1998, San Diego, California.	

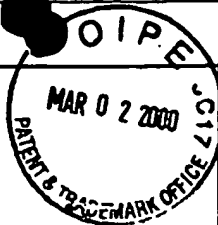
Examiner Signature	John Sotomayor	Date Considered	8/5/04
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ATTY DOCKET NO. C0136.HTM

SERIAL NO. 09/237,969

APPLICANT Alexander et al.

FILING DATE January 27, 1999

GROUP

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
JHL	3,226,846	01/04/1966	Wood			
JHL	3,304,434	02/14/1967	Koster			
JHL	3,541,541	11/17/1970	Engelbart			
JHL	3,748,366	07/24/1973	Rader et al.			
JHL	3,775,865	12/04/1973	Rowan			
	Des. 233,238	10/15/1974	Reid et al.			
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JHL	4,360,345	11/23/1982	Hon			
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JHL	4,459,113	07/10/1984	Boscaro Gatti et al.			
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DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
SU 1124-372-A	11/15/1984	Soviet Union			
EP 169-776-A	01/29/1986	Europe			

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

JHL	GINSBURG, <i>This Shot Won't Hurt At All</i> , Washington Business, July 6, 1998.
JHL	MERRIL, <i>Virtual and Augmented Reality in Medicine</i> , Proceedings of the IEEE, Vol. 86, No. 3, March 1998, pp. 471-473.
JHL	HAHN et al., <i>Training Environment for Inferior Vena Caval Filter Placement</i> , Medicine Meets Virtual Reality, January 1998, pp. 291-296.
JHL	Immersion Human Interface Corporation, <i>Programmer's Technical Reference Manual: Immersion Probe and Personal Digitizer</i> , May 1994, pp. 1-80.
JHL	KEGIER, <i>Surgeons Turn to Surgical Simulation Via Virtual Reality to Practice New Procedures</i> , Laparoscopy News, November 1994, pp. 6-8.
JHL	MERRIL et al., <i>Cyber Surgery: Cutting Costs, Sewing Benefits</i> , Virtual Reality Special Report, Summer, 1994, pp. 39-42.

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U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>hds</i>	4,642,055	02/10/1987	Saliterman			
<i>hds</i>	4,712,101	12/08/1987	Culver			
<i>hds</i>	4,726,772	02/23/1988	Amplatz			
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<i>hds</i>	4,807,158	02/21/1989	Blanton et al.			
<i>hds</i>	4,867,168	09/19/1989	Stoor et al.			
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SU 1335-994-A	11/30/1987	Soviet Union			

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>hds</i>	HON, <i>Realistic Medical Simulations</i> , Virtual Reality World, July/August, 1994, pp. 59-62.
<i>hds</i>	SATAVA, <i>The Role of Virtual Reality in Medicine of the 21st Century</i> , Virtual Reality Systems, Vol. 1, No. 2, Fall 1993, pp. 64-67.
<i>hds</i>	MERRIL et al., <i>Virtual Heart Surgery: Trade Show and Medical Education</i> , Virtual Reality World, July/August 1994, pp. 55-57.
<i>hds</i>	MERRIL et al., <i>Virtual Reality for Tradeshows and Individual Physician Training</i> , Virtual Reality Systems, Spring 1994, pp. 40-44.
<i>hds</i>	ROSENBERG, <i>Medical Applications of Virtual Reality</i> , Virtual Reality Systems, Vol. 1, No. 3, Spring 1994, pp. 48-50.

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LJS	4,879,668	11/07/1989	Cline et al.			
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LJS	4,936,862	06/26/1990	Walker et al.			
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DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
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LJS	TAUBES, <i>Surgery in Cyberspace</i> , Discover, December, 1994, pp. 85-94.
LJS	KRUEGER et al., <i>The Responsive Workbench</i> , IEEE Computer Graphics and Applications, May, 1994, pp. 12-15.
LJS	JACKSON et al., <i>Force Feedback and Medical Simulation</i> , Interactive Technology and the New Paradigm for Healthcare, January 1995, pp. 147-151.
LJS	COVER et al., <i>Interactively Deformable Models for Surgery Simulation</i> , IEEE Computer Graphics & Applications, Vol. 13, No. 6, November 1993, pp. 68-75.
LJS	OKIE, <i>Out of Body Medicine</i> , Washington Post, November 5, 1996, pp. 12-14, 17.

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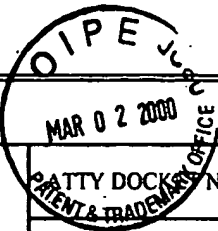
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LHL	5,185,561	02/09/1993	Good et al.			
LHL	5,205,289	04/27/1993	Hardy et al.			
LHL	5,220,260	06/15/1993	Schuler			
LHL	5,222,499	06/29/1993	Allen et al.			
LHL	5,261,404	11/16/1993	Mick et al.			
LHL	5,273,038	12/28/1993	Beavin			
LHL	5,295,694	03/22/1994	Levin			
LHL	5,311,422	05/10/1994	Loftin et al.			
LHL	5,320,326	06/14/1994	Ju et al.			
LHL	5,320,537	06/14/1994	Watson et al.			
LHL	5,320,538	06/14/1994	Baum			

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LHL		SMITH, <i>Scanning the Technology</i> , Proceedings of IEEE, Vol 86, No. 3, March 1998, pp. 474-478.
LHL		DAWSON et al., <i>The Imperative for Medical Simulation</i> , Proceedings of IEEE, Vol 86, No. 3, March 1998, pp. 479-483.
LHL		SATAVA et al., <i>Current and Future Applications of Virtual Reality for Medicine</i> , Proceedings of IEEE, Vol. 86, No. 3, March 1998, pp.484-489.
LHL		BRO-NIELSEN, <i>Finite Element Modeling in Surgery Simulation</i> , Proceedings of IEEE, Vol 86, No. 3, March 1998, pp. 490-503.
LHL		ACKERMAN, <i>The Visible Human Project</i> , Proceedings of IEEE, Vol 86, No. 3, March 1998, pp. 504-511.
LHL		DELINGETTE, <i>Toward Realistic Soft Tissue Modeling in Medical Simulation</i> , Proceedings of IEEE, Vol 86, No. 3, March 1998, pp. 512-523.

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JLS	5,322,441	06/21/1994	Lewis et al.			
JLS	5,333,106	07/26/1994	Lanpher et al.			
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JLS		CHAN et al., <i>Force Feedback for Surgical Simulation</i> , Proceedings of IEEE, Vol 86, No. 3, March 1998, pp. 524-530.
JLS		SOFERMAN et al., <i>Advanced Graphics Behind Medical Virtual Reality: Evolution of Algorithms, Hardware, and Software Interfaces</i> , Proceedings of IEEE, Vol 86, No. 3, March 1998, pp. 531-554.
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		HILL et al., <i>Telepresence Technology in Medicine: Principles and Applications</i> , Proceedings of IEEE, Vol 86, No. 3, March 1998, pp. 569-580.

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John A. Sotomayor

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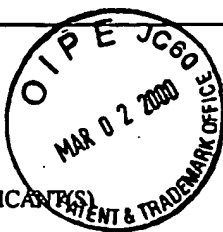
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ATTY DOCKET NO. C0136.HTM

SERIAL NO. 09/237,969

APPLICANT Alexander et al.

FILING DATE January 27, 1999

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*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
LJS	5,403,191	04/04/1995	Tuason			
LJS	5,414,337	05/09/1995	Schuler			
LJS	5,438,529	08/01/1995	Rosenberg et al.			
LJS	5,451,924	09/19/1995	Massimino et al.			
LJS	5,454,722	10/03/1995	Holland et al.			
LJS	5,459,382	10/17/1995	Jacobus et al.			
LJS	5,482,472	01/09/1996	Garoni et al.			
LJS	5,483,254	01/09/1996	Powell			
LJS	5,483,961	01/16/1996	Kelly et al.			
LJS	5,509,810	04/23/1996	Schertz et al.			
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DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
WO 96/16397	05/30/1996	WIPO			
WO 96/28800	09/19/1996	WIPO			

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

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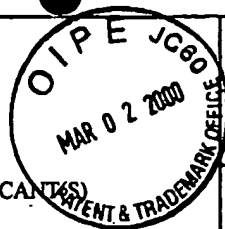
John Sotomayor

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GROUP

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>LZL</i>	5,513,992	05/07/1996	Refait			
<i>LZL</i>	5,518,406	05/21/1996	Waters			
<i>LZL</i>	5,531,227	07/02/1996	Schneider			
<i>LZL</i>	5,546,943	08/20/1996	Gould			
<i>LZL</i>	5,552,995	09/03/1996	Sebastian			
<i>LZL</i>	5,559,412	09/24/1996	Schuler			
<i>LZL</i>	5,576,727	11/19/1996	Rosenberg et al.			
<i>LZL</i>	5,589,854	12/31/1996	Tsai			
<i>LZL</i>	5,593,306	01/14/1997	Kohnke			
<i>LZL</i>	5,609,485	03/11/1997	Bergman et al.			
<i>LZL</i>	5,623,582	04/22/1997	Rosenberg			

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FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
<i>LZL</i> EP 0 800 804	10/15/1997	Europe			
<i>LZL</i> WO 98/10387	03/12/1998	WIPO			

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*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>LL</i>	5,629,594	05/13/1997	Jacobus et al.			
<i>LL</i>	5,666,138	09/09/1997	Culver			
<i>LL</i>	5,682,886	11/04/1997	Delp et al.			
<i>LL</i>	5,687,259	11/11/1997	Linford			
<i>LL</i>	5,691,898	11/25/1997	Rosenberg et al.			
<i>LL</i>	5,701,140	12/23/1997	Rosenberg et al.			
<i>LL</i>	5,704,791	01/06/1998	Gillio			
<i>LL</i>	5,721,566	02/24/1998	Rosenberg et al.			
<i>LL</i>	5,722,836	03/03/1998	Younker			
<i>LL</i>	5,724,264	03/03/1998	Rosenberg et al.			
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DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
<i>LL</i> WO 98/58308	12/23/1998	WIPO			
<i>LL</i> EP 0 908 836	04/14/1999	Europe			

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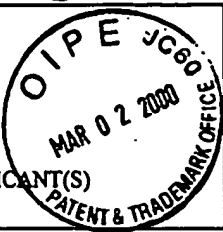
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LHL	5,734,373	03/31/1998	Rosenberg et al.			
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LHL	5,740,802	04/21/1998	Nafis et al.			
LHL	5,742,278	04/21/1998	Chen et al.			
LHL	5,755,577	05/26/1998	Gillio			
LHL	5,766,016	06/16/1998	Sinclair et al.			
LHL	5,767,839	06/16/1998	Rosenberg			
LHL	5,768,134	06/16/1998	Swaelens et al.			
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LHL	5,791,908	08/11/1998	Gillio			
LHL	5,800,177	09/01/1998	Gillio			

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DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
WO 99/25536	05/27/1999	WIPO			
WO 99/38141	07/29/1999	WIPO			

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John Setenmayer

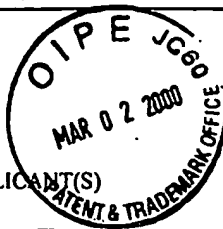
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LZL	5,800,178	09/01/1998	Gillio			
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LZL	5,807,115	09/15/1998	Hu			
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WO 95/02801	01/26/1995	WIPO			

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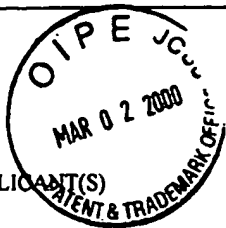
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<i>LL</i>	5,880,976	03/09/1999	DiGioia, III et al.			
<i>LL</i>	5,882,206	03/16/1999	Gillio			
<i>LL</i>	5,882,207	03/16/1999	Lampotang et al.			
<i>LL</i>	5,890,908	04/06/1999	Lampotang et al.			
<i>LL</i>	5,891,131	04/06/1999	Rajan et al.			
<i>LL</i>	5,909,380	06/01/1999	Dubois et al.			
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<i>LL</i>	5,945,056	08/31/1999	Day et al.			
<i>LL</i>	5,947,743	09/07/1999	Hasson			
<i>LL</i>	5,951,301	09/14/1999	Yunker			
<i>LL</i>	5,956,040	09/21/1999	Asano et al.			

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John Sotomayor

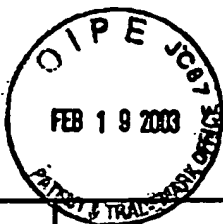
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PTO/SB/08A (08-00)

Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	09/237,969
		Filing Date	January 27, 1999
		First Named Inventor	David ALEXANDER
		Group Art Unit	3714
		Examiner Name	J. Sotomayor
Sheet	1	of	1
		Attorney Docket Number	IMMR023/01US (NEW)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code ² (if known)		

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)			
JSA	1	GB	2288686	A	University of Bristol	10-25-1995	
JSA	2	GB	2252656	A	KeyMed	08-12-1992	
JSA	3	EP	0970714	A2	Mitsubishi	01-12-2000	
JSA	4	WO	98/03954	A1	Colorado Medical Simulators, Inc.	01-29-1998	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶

Examiner Signature	<i>John L. Sotomayor</i>	Date Considered	4/23/03
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¹ Unique citation designation number.

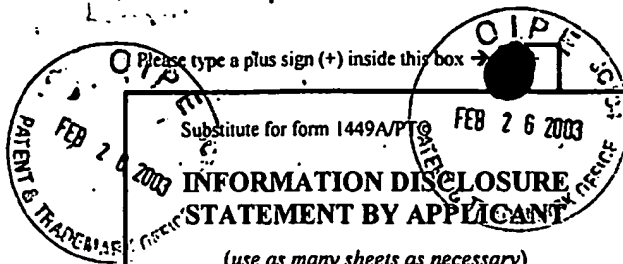
² See attached Kinds of U.S. Patent Documents.

³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

⁶ Applicant is to place a check mark here if English language Translation is attached.



Substitution for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	09/237,969
		Filing Date	January 27, 1999
		First Named Inventor	David ALEXANDRE et al.
		Group Art Unit	3714
		Examiner Name	J. Sotomayor
		Attorney Docket Number	IMMR-023/01US
Sheet	1	of	3

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U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY		
		Number	Kind Code ² (if known)				
JSA	A1	5,785,630		Bobick, et al.	07/28/1998		
	A2	5,766,016		Sinclair et al.	06/16/1998		
	A3	5,547,382		Yamasaki et al.	08/20/1996		
	A4	5,466,213		Hogan et al.	11/14/1995		
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	A6	5,309,140		Everett, Jr., et al.	05/03/1994		
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	A17	4,934,694		McIntosh	06/19/1990		
	A18	4,930,770		Baker	06/05/1990		
	A19	4,891,764		McIntosh	01/02/1990		
	A20	4,794,392		Selinko	12/27/1988		
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	A35	3,157,853		Hirsch	11/17/1964		
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Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)			
JSA	B1		0 349 086	A1	Stork Kwant B.V.	01/03/1990	

¹ Unique citation designation number.

² See attached Kinds of U.S. Patent Documents.

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⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet	2	of	3	Application Number	09/237,969
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Filing Date	January 27, 1999
First Named Inventor	David ALEXANDRE et al.
Group Art Unit	3714
Examiner Name	J. Sotomayor
Attorney Docket Number	IMMR-023/01US

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
JSA	C1	Baigrie, "Electric Control Loading - A Low Cost, High Performance Alternative," <i>Proceedings of Interservice/Industry Training Systems Conference</i> , pp. 247-254, November 6-8, 1990	
	C2	Iwata, "Pen-based Haptic Virtual Environment," 0-7803-1363-1/93 IEEE, pp. 287-292, 1993	
	C3	Russo, "The Design and Implementation of a Three Degree of Freedom Force Output Joystick," <i>MIT Libraries Archives</i> pp. 1-131, May 1990, archived 8/14/90	
	C4	Brooks et al., "Hand Controllers for Teleoperation - A State-of-the-Art Technology Survey and Evaluation," <i>JPL Publication 85-11</i> , NASA-CR-175890; N85-28559, pp. 1-84, 03/11/1985	
	C5	Jones et al., "A perceptual analysis of stiffness," ISSN 0014-4819 Springer International (Springer-Verlag); <i>Experimental Brain Research</i> , Vol. 79, No. 1, pp. 150-156, 1990	
	C6	Burdea et al., "Distributed Virtual Force Feedback, Lecture Notes for Workshop on Force Display in Virtual Environments and its Application to Robotic Teleoperation," <i>1993 IEEE International Conference on Robotics and Automation</i> , pp. 25-44, 05/02/1993	
	C7	Snow et al., "Model-X Force-Reflecting-Hand-Controller," NT Control No. NPO-17851; JPL Case No. 7348, pp. 1-4 with 45 pages of attachments, 06/15/1989	
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	C9	Tadros, "Control System Design for a Three Degree of Freedom Virtual Environment Simulator Using Motor/Brake Pair Actuators," <i>MIT Archive</i> , pp. 1-88, February 1990, archived 8/13/90	
	C10	Caldwell et al., "Enhanced Tactile Feedback (Tele-Taction) Using a Multi-Functional Sensory System," 1050-4729/93, pp. 955-960, 1993	
	C11	Adelstein et al., "Design and Implementation of a Force Reflecting Manipulandum for Manual Control research," DSC-Vol. 42, <i>Advances in Robotics</i> , pp. 1-12, 1992	
	C12	Gotow et al., "Controlled Impedance Test Apparatus for Studying Human Interpretation of Kinesthetic Feedback," WAI11-11:00, pp. 332-337	
	C13	Stanley et al., "Computer Simulation of Interacting Dynamic Mechanical Systems Using Distributed Memory Parallel Processors," DSC-Vol. 42, <i>Advances in Robotics</i> , pp. 55-61, ASME 1992	
	C14	Russo, "Controlling Dissipative Magnetic Particle Brakes in Force Reflective Devices," DSC-Vol. 42, <i>Advances in Robotics</i> , pp. 63-70, ASME 1992	
	C15	Kontarinis et al., "Display of High-Frequency Tactile Information to Teleoperators," <i>Telemanipulator Technology and Space Telerobotics</i> , Won S. Kim, Editor, Proc. SPIE Vol. 2057, pp. 40-50, Sep. 7-9, 1993	
	C16	Patrick et al., "Design and Testing of A Non-reactive, Fingertip, Tactile Display for Interaction with Remote Environments," <i>Cooperative Intelligent Robotics in Space</i> , Rui J. deFigueiredo et al, Editor, Proc. SPIE Vol. 1387, pp. 215-222, 1990	
	C17	Adelstein, "A Virtual Environment System For The Study of Human Arm Tremor," <i>Ph.D. Dissertation</i> , Dept. of Mechanical Engineering, MIT, June 1989, archived 3/13/90	
	C18	Bejczy, "Sensors, Controls, and Man-Machine Interface for Advanced Teleoperation," <i>Science</i> , Vol. 208, No. 4450, pp. 1327-1335, 1980	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	09/237,969
		Filing Date	January 27, 1999
		First Named Inventor	David ALEXANDRE et al.
		Group Art Unit	3714
		Examiner Name	J. Sotomayor
Sheet	3	of	3
		Attorney Docket Number	INMIR-023/0IUS

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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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